



## Complete Summary

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### TITLE

Advanced chronic kidney disease (CKD): percent of patients prescribed elemental calcium.

### SOURCE(S)

Renal Physicians Association. Appropriate patient preparation for renal replacement therapy. Rockville (MD): Renal Physicians Association; 2002 Oct 1. 78 p. (Clinical Practice Guideline; no. 3).

## Brief Abstract

### DESCRIPTION

This measure assesses the percent of patients prescribed elemental calcium among patients with advanced chronic kidney disease (CKD) with corrected calcium less than 8.5 mg/dL and normal phosphorous levels.

### RATIONALE

Renal osteodystrophy is a complex and multifacted disease process that begins early in the course of chronic kidney disease (CKD) and is a major, long-term complication associated with high rates of morbidity. The metabolic and skeletal derangements associated with renal osteodystrophy are not easily reversed and, therefore, early interventions are crucial.

Hypocalcemia increases risk for bone disease and progression of hyperparathyroidism (HPTH).

### PRIMARY CLINICAL COMPONENT

Advanced chronic kidney disease; renal osteodystrophy; hypocalcemia; elemental calcium; corrected calcium; serum phosphorous

### DENOMINATOR DESCRIPTION

The number of adult patients with advanced chronic kidney disease (CKD), not currently receiving renal replacement therapy, with corrected calcium less than 8.5 mg/dL and normal phosphorus levels

### NUMERATOR DESCRIPTION

The number of patients from the denominator prescribed elemental calcium

## Evidence Supporting the Measure

### PRIMARY MEASURE DOMAIN

Process

### SECONDARY MEASURE DOMAIN

Outcome

### EVIDENCE SUPPORTING THE MEASURE

A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence

A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences

A systematic review of the clinical literature

### NATIONAL GUIDELINE CLEARINGHOUSE LINK

- [Appropriate patient preparation for renal replacement therapy.](#)

## Evidence Supporting Need for the Measure

### NEED FOR THE MEASURE

Unspecified

## State of Use of the Measure

### STATE OF USE

Pilot testing

### CURRENT USE

Internal quality improvement

## Application of Measure in its Current Use

### CARE SETTING

Ambulatory Care

Physician Group Practices/Clinics

### PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Physicians

## LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Individual Clinicians

## TARGET POPULATION AGE

Age greater than or equal to 18 years

## TARGET POPULATION GENDER

Either male or female

## STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

## Characteristics of the Primary Clinical Component

## INCIDENCE/PREVALENCE

Unspecified

## ASSOCIATION WITH VULNERABLE POPULATIONS

Unspecified

## BURDEN OF ILLNESS

Hypocalcemia increases risk for bone disease and progression of hyperparathyroidism (HPTH).

## EVIDENCE FOR BURDEN OF ILLNESS

Reichel H, Deibert B, Schmidt-Gayk H, Ritz E. Calcium metabolism in early chronic renal failure: implications for the pathogenesis of hyperparathyroidism. *Nephrol Dial Transplant* 1991;6(3):162-9. [PubMed](#)

## UTILIZATION

Unspecified

## COSTS

Unspecified

## Institute of Medicine National Healthcare Quality Report Categories

## IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

#### Data Collection for the Measure

#### CASE FINDING

Users of care only

#### DESCRIPTION OF CASE FINDING

Adult patients 18 years and older with advanced chronic kidney disease (CKD) with corrected calcium less than 8.5 mg/dL and normal phosphorous levels

#### DENOMINATOR (INDEX) EVENT

Clinical Condition

#### DENOMINATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

Adult patients age 18 years and older with chronic kidney disease stage 4 or 5 (glomerular filtration rate [GFR] less than or equal to 30 mL/min/1.73 m<sup>2</sup>), not currently receiving renal replacement therapy, with corrected calcium less than 8.5 mg/dl and normal phosphorus levels

##### Exclusions

Unspecified

#### NUMERATOR INCLUSIONS/EXCLUSIONS

##### Inclusions

The number of patients from the denominator prescribed elemental calcium\*

\*Recommended dose of elemental calcium is 1 g/day between meals or at bed-time.

##### Exclusions

Unspecified

#### DENOMINATOR TIME WINDOW

Time window precedes index event

#### NUMERATOR TIME WINDOW

Episode of care

#### DATA SOURCE

Administrative data  
Laboratory data  
Medical record  
Pharmacy data

#### LEVEL OF DETERMINATION OF QUALITY

Individual Case

#### OUTCOME TYPE

Clinical Outcome

#### PRE-EXISTING INSTRUMENT USED

Unspecified

### Computation of the Measure

#### SCORING

Rate

#### INTERPRETATION OF SCORE

Better quality is associated with a higher score

#### ALLOWANCE FOR PATIENT FACTORS

Unspecified

#### STANDARD OF COMPARISON

Internal time comparison

### Evaluation of Measure Properties

#### EXTENT OF MEASURE TESTING

Unspecified

### Identifying Information

#### ORIGINAL TITLE

Number of patients prescribed elemental calcium / number of patients with advanced CKD, with corrected calcium less than 8.5 mg/dL and normal phosphorus levels.

#### MEASURE COLLECTION

[Renal Physicians Association Clinical Performance Measures on Appropriate Patient Preparation for Renal Replacement Therapy](#)

#### MEASURE SET NAME

[Renal Physicians Association Clinical Performance Measures for Bone Disease Recommendations](#)

#### DEVELOPER

Renal Physicians Association

#### ADAPTATION

Measure was not adapted from another source.

#### RELEASE DATE

2002 Oct

#### MEASURE STATUS

This is the current release of the measure.

#### SOURCE(S)

Renal Physicians Association. Appropriate patient preparation for renal replacement therapy. Rockville (MD): Renal Physicians Association; 2002 Oct 1. 78 p. (Clinical Practice Guideline; no. 3).

#### MEASURE AVAILABILITY

The individual measure, "Number of patients prescribed elemental calcium / number of patients with advanced CKD, with corrected calcium less than 8.5 mg/dL and normal phosphorus levels," is published in "Renal Physicians Association Clinical Practice Guideline #3: Appropriate Patient Preparation for Renal Replacement Therapy."

For more information, contact RPA at 1700 Rockville Pike, Suite 220, Rockville, MD 20852; phone: 301-468-3515; fax: 301-468-3511; Web site: [www.renalmd.org](http://www.renalmd.org); e-mail: [rpa@renalmd.org](mailto:rpa@renalmd.org).

#### NQMC STATUS

This NQMC summary was completed by ECRI on May 23, 2003. The information was verified by the Renal Physicians Association on June 17, 2003.

#### COPYRIGHT STATEMENT

This NQMC summary is based on the original measure, which is subject to the measure developer's copyright restrictions.

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